

CALL FOR PAPERS

# SSRR 2007



IEEE International Workshop on Safety, Security, and Rescue Robotics

Istituto Superiore Antincendi

Roma, ITALY

September 27-29 2007

*Sponsored by:*

**WEBSITE:** [sied.dis.uniroma1.it/ssrr2007](http://sied.dis.uniroma1.it/ssrr2007)

**IEEE Robotics and Automation Society**  
(subject to final approval)

*Technically Co-Sponsored by:*

**EMAIL:** [ssrr2007@dis.uniroma1.it](mailto:ssrr2007@dis.uniroma1.it)

**International Rescue Systems Institute, Japan**  
**NIST Intelligent Systems Division, USA**

## GENERAL CHAIR:

**Daniele Nardi,**

Dipartimento di Informatica e Sistemistica,  
University "La Sapienza," Roma, Italy,

## REGIONAL PROGRAM CO-CHAIRS:

USA: **Richard Voyles,**

University of Denver, USA

Asia: **Satoshi Tadokoro,**

Tohoku University, Sendai, Japan

Europe: **Anibal Ollero**

University of Seville, Spain

## IMPORTANT DATES:

May 8, 2007 Full papers due  
Demonstration proposals due  
June 23, 2007 Notification of acceptance  
July 20, 2007 Final Papers due

## RELATED EVENTS

**(see website for details):**

### September 26 Rescue Robot Practice 2007

Attendees are invited to see demonstration of robot assessment exercises at on-site rescue robot testing facility.

### September 22-26 Rescue Robotics Camp 2007

The Rescue Robotics Camp held since 2004, gathers newcomers and practitioners for a crash hands-on experience on SSR Robots. Final demonstration will be displayed on September 26 at the Conference Venue.

The IEEE International Workshop on Safety, Security, and Rescue Robotics (SSRR2007) is dedicated to identifying and solving the key issues necessary to field capable robots across a variety of challenging applications. This year it will be hosted at the Istituto Superiore Antincendi, Roma Italy (September 27-29 2007). This fifth workshop in the series will address both the research challenges posed by search and rescue scenarios and the design of deployable robotic systems that satisfy user-defined requirements. It will be co-located with the Rescue Robotics Camp 2007 to create a unique opportunity for development and exchange of research ideas and technical solutions. As always, emergency responders and other expected users will be involved in presentations and discussions to ensure the practical relevance of technology developments for actual usage. Topics for papers and demonstrations, include:

- Robot performance requirements and technical solutions for applications of SSRR (explosive ordinance disposal, urban search and rescue, CBRN hazard detection/mitigation, physical security, surveillance, ...)
- Locomotion for ground, aerial, aquatic, indoor, and collapsed structures
- Perception for navigation, hazard detection, and victim identification
- Mapping of complex environments (2-D, 3-D, GIS integration, ...)
- Manipulation capabilities (hazards, payloads, obstacles, doors, ...)
- Communications for reliable data transfer (tether management, radio, ...)
- Intelligent behaviors to improve robot performance and survivability
- Human-robot interfaces for improved remote situational awareness
- Autonomous search and exploration
- Multi-robot teams and mixed human-robot teams
- Training methods and other personnel issues
- Emerging technologies (sensors, power sources, micro robots, ...)
- Emergency management issues related to robotics

**Papers** should be submitted electronically to [ssrr2007@dis.uniroma1.it](mailto:ssrr2007@dis.uniroma1.it) in PDF format. Six camera-ready pages including figures are allowed for each paper. A maximum of two additional pages are permitted at \$100 extra charge. Detailed instructions for paper submissions are available on the workshop web page.

**Robot Demonstrations** are welcome and will be incorporated into the program if accepted. Please submit a one page description of how your demonstration will be compelling for safety, security, or rescue robot developers and users to see, along with images and a video of the demonstration (MPEG files up to 10 MB).